

## **REMARKS/ARGUMENTS**

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

### **I. STATUS OF THE CLAIMS AND FORMAL MATTERS**

Claims 1 and 4 are currently pending. Claims 1 and 4 are independent and are hereby amended. No new matter has been introduced by this amendment. Support for this amendment is provided throughout the Specification.

Changes to claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicant is entitled.

### **I. CLAIM REJECTIONS UNDER 35 U.S.C. §112**

Claims 1 and 4 have been amended to overcome the first 35 U.S.C. §112 rejection. Applicant submits that the subject matter of “a dispersed manner” relates to code being recorded over a plurality of tracks, as per amended recitations in claims 1 and 4. Pub. Appl. par. [0101].

Reconsideration and withdrawal of this 35 U.S.C. §112 rejection is respectfully requested.

Applicants respectfully traverse the second rejection claims 1 and 4 under 35 U.S.C. §112, second paragraph. The Office Action points to claim 1, lines 13-15, wherein it is recited, “. . . said second series code generating means generates said second series code such that a ratio between said second parity and said second series code equals at least 1/N.”

The Office Action asserts, “[i]t seems as though second series code will always be 1 since the claim states a second series code in paragraph.” (Emphasis in original). This is an understandable misinterpretation of the claim terms. The element “a second series code” recited in claim 1 is, in fact, not 1. The error correcting code is unambiguously defined in the specification:

“An ‘error correction code’ (ECC) means a code wherein parity bit(s) is added to data having a certain number of bits, the parity bit(s) being generated from that data, and has functionality to detect the position of an error or correct the error using the parity bit(s) during reproduction. Note herein that a minimum unit of an ECC composed of data and parity bits will be simply called a “code”. And a group of these codes will be denoted as a ‘code series’.” Publ. App. par. [0076] (emphasis added).

*Phillips v. AWH Corp.*, 415 F.3d 1303, 1319 (Fed. Cir. 2004) (“Claims are construed in light of the specification, of which they are a part”). *See, also*, MPEP 2101.01 and MPEP 2173.05.

Thus, “code series” (used interchangeably with “series code” throughout the specification) is a group of error correcting codes. Applicants have defined and used “series code” clearly, unambiguously and consistently throughout the specification and claims. Thus, the ratio between the second parity and the second series code does not equal 1 because the second series code is a group of error correcting codes.

Applicants respectfully request reconsideration of this 35 U.S.C. §112 rejection of claims 1 and 4 for the reason stated herein above. Further discussion is provided in addressing the §103 rejection herein below.

## II. REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 1-4 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,369,641 to Dodt et al. (hereinafter, merely “Dodt”) in view of U.S. Patent No. 6,560,402 to Misawa et al. (hereinafter, merely “Misawa”).

Claim 1 recites, *inter alia*:

“wherein said second series code generating means generates said second series code such that a ratio between said second parity and said second series code equals at least  $1/N$

...

wherein said number  $N$  of said recording heads are 4 or more, and

...

wherein said first series code is recorded across a plurality of tracks, which are formed by one of said  $N$  recording heads.”

Applicant reiterates the arguments presented in response to the previous Office Action.

Claim 1 recites, “said second series code generating means generates said second series code such that a ratio between said second parity and said second series code equals at least  $1/N$ .” As discussed above, the second series code includes a group of error correcting codes (ECC), as defined in the specification. In the present invention, the ratio of parity symbols in an outer code series (second series) which extends over a plurality of tracks of a plurality of two- or three-dimensional ECC series is set to  $1/N$  or more of the code length (the number of symbols), wherein  $N$  is the number of recording heads.

That is, for example, any recording apparatus having four recording heads will have the ratio of parity symbols in a code extending across tracks (second series) is set to  $1/4$  or more of the code length (the number of symbols); its redundancy rate is set to 25%

or higher. As a result, even if, for example, one whole track is destroyed out of four tracks recorded by the four recording heads occur, that track can be reproduced by such a loss correction provided in the specification.

Moreover, Applicant respectfully submits that there is no teaching or suggestion of a recording apparatus of a helical scan type capable of recording data as inclined tracks onto a tape-shaped recording medium wherein said number N of said recording heads are 4 or more, and wherein said first series code is recorded across a plurality of tracks, which are formed by one of said N recording heads, as recited in claim 1. Applicant appreciates that there are recording systems having 4 heads. However, Applicant contends there are not recording systems having at least 4 heads that include all the other elements recited in claim 1.

Applicant submits that Dodt and Misawa, taken alone or in combination, fail to teach or suggest the claimed subject matter of claim 1. Therefore, Applicant submits that independent claim 1 is patentable.

For reasons similar to those described above with regard to independent claim 1, independent claim 4 is also believed to be patentable.

Therefore, Applicant submits that independent claims 1 and 4 are patentable.

### **CONCLUSION**

In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited reference, or references, it is respectfully requested that the Examiner specifically indicate those portions of the reference, or references, providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicant respectfully requests early passage to issue of the present application.

Respectfully submitted,

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